To: Holland, Matthew@Waterboards[Matthew.Holland@waterboards.ca.gov]; Niiya, Karen@Waterboards[Karen.Niiya@waterboards.ca.gov]
Cc: Riddle, Diane@Waterboards[Diane.Riddle@waterboards.ca.gov]; Cabrera-Stagno, Valentina[Cabrera-Stagno.Valentina@epa.gov]; Gowdy, Mark@Waterboards[Mark.Gowdy@waterboards.ca.gov]
From: Foresman, Erin
Sent: Mon 4/28/2014 2:38:54 PM
Subject: RE: Phase II technical support?

Hi Matt,

Thank you so much for giving us your feedback, especially during this v. busy time. I am sorry I didn't get a chance to call you on Thursday or Friday. This will be really helpful for our discussion today. Thank you also for checking in with Bruce. That is also v. helpful. I'll try you at your desk this morning to see if you have five minutes to chat otherwise I'll be in touch soon.

Erin Foresman

US EPA | SF Bay Delta | Environmental Scientist

C/O NMFS 650 Capitol Mall| Sacramento, CA 95814

916-930-3722|www.epa.gov/sfbaydelta

Schedule: M 8:30a - 5:00p; T - F 8:30a - 3:00p

From: Holland, Matthew@Waterboards [mailto:Matthew.Holland@waterboards.ca.gov]
Sent: Friday, April 25, 2014 4:05 PM
To: Foresman, Erin; Niiya, Karen@Waterboards
Cc: Riddle, Diane@Waterboards; Cabrera-Stagno, Valentina; Gowdy, Mark@Waterboards
Subject: RE: Phase II technical support?

Erin,

We appreciate the opportunity to provide some feedback for your discussion of possible technical support activities for Phase 2. As you know, we are not quite as far along in Phase 2 as

we would like to be, which limits the scope of ideas we have to offer at this time. However, here are a few items (all related to salinity) that we would be in a good position to use in the near future:

1. Calibration and validation of the coarse-grid UnTRIM model being used in the existing Tetra Tech project to produce GIS layers for depth-averaged salinity and fish distribution/abundance data. Perhaps an augmentation to the Tetra Tech contract could ensure that this gets done.

2. Technical work supporting improved monitoring of X2:

a. Calibrate and validate UnTRIM using USGS ADCP data and finer scale data from Stephen Monismith.

b. Design a bottom salinity monitoring network and estimate the cost of installation and continued operation.

(2b) was one of your suggestions, and it does seem clear that this is the direction we should be going in. We also discussed our needs a bit with Bruce Herbold, and he suggested that (2a) would be useful to make the most of historical data and future model scenarios.

I know this is getting to you after your regular Friday hours, but if you have any thoughts and have time to talk before your Monday meeting, give me a call.

Best regards,

Matt

Matt Holland

State Water Resources Control Board

1001 I St, 14th Floor

Sacramento, CA 95814

matthew.holland@waterboards.ca.gov

(916) 341-5947

From: Foresman, Erin [mailto:Foresman.Erin@epa.gov]
Sent: Thursday, April 24, 2014 8:54 AM
To: Niiya, Karen@Waterboards
Cc: Riddle, Diane@Waterboards; Cabrera-Stagno, Valentina; Gowdy, Mark@Waterboards; Holland, Matthew@Waterboards
Subject: RE: Phase II technical support?

Thank you Karen! I really appreciate your message and I can follow up with Matt.

Good luck with the TUCP order. It seems to be pretty challenging & delicate work.

Thanks again,

Erin

Erin Foresman

US EPA | SF Bay Delta | Environmental Scientist

C/O NMFS 650 Capitol Mall| Sacramento, CA 95814

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Schedule: M 8:30a - 5:00p; T - F 8:30a - 3:00p

From: Niiya, Karen@Waterboards [mailto:Karen.Niiya@waterboards.ca.gov]
Sent: Wednesday, April 23, 2014 1:23 PM
To: Foresman, Erin

Cc: Riddle, Diane@Waterboards; Cabrera-Stagno, Valentina; Gowdy, Mark@Waterboards; Holland, Matthew@Waterboards
Subject: RE: Phase II technical support?

Erin,

We are really busy with the TUCP Order, so Matt Holland is preparing a response for you. Feel free to contact him directly.

Karen

From: Foresman, Erin [mailto:Foresman.Erin@epa.gov]
Sent: Monday, April 21, 2014 2:23 PM
To: Gowdy, Mark@Waterboards
Cc: Niiya, Karen@Waterboards; Riddle, Diane@Waterboards; Cabrera-Stagno, Valentina
Subject: Phase II technical support?

Hi Mark,

Some technical support funding became available to our Bay Delta team again this year, similar to last year, and Valentina and I have been thinking about ways to support the Phase I and II updates to the WQCP. Will you be the person who does Phase II modeling when the modeling work for Phase I is finished? If so, Valentina and I were hoping you might have some ideas about areas where support would be helpful.

Some of the ideas I had for Phase II are listed in the email below that I sent to Karen earlier today. Valentina and I were talking just now and were thinking we'd love advice from you too if you can spare some time, especially the ideas that involve CALSIM.

If you have any thoughts on this, we'd love to hear them, hopefully by Friday of this week. I realize SB is v. impacted by drought work and the turn-around time is super-fast. Valentina and I are meeting with others at EPA about how to spend these funds next Monday.

Erin Foresman

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C/O NMFS 650 Capitol Mall| Sacramento, CA 95814

916-930-3722|www.epa.gov/sfbaydelta

Schedule: M 8:30a - 5:00p; T - F 8:30a - 3:00p

From: Foresman, Erin
Sent: Monday, April 21, 2014 9:20 AM
To: 'Niiya, Karen@Waterboards'
Cc: Cabrera-Stagno, Valentina
Subject: Are you around this morning or tomorrow to chat?

Hi Karen,

Valentina and I are talking again today about potential support tasks for our contract dollars. I always have in mind technical/scientific work at the consulting level that could support Phase II update of WQCP. If you have anything in mind, I'd love to hear about it.

It's been a while since I looked at Phase II and reminded myself of the list of review items/potential changes which are:

1. Delta outflow objective – some ideas for tech support

- Run CALSIM to estimate the amount of water available for export by meeting a range of spring and fall X2 values (e.g., spring X2 50-82 km and fall 60-90, based in 1921-2011 mean

monthly unimpaired flow ranges). The idea is to mimic the pattern of the natural hydrograph in the Delta by choosing these X2 ranges, see attached slide. The assumption is the natural hydrograph will benefit native resident and migratory fishes and limit habitat for invasive fishes like lg. mouth bass.Run CALSIM to meet EC and Cl WQS within the upper estuary and estimate the amount of water available export. This would also include a Climate Change sensitivity analysis.

- Run CALSIM to for the SWRCB's suggested BDCP alternative (1.5 MAF extra outflow) and all of the requirements in the SWRCB request (I don't think this was done for BDCP).

2. E/I objective

3. Delta X channel objectives

4. Suisun Marsh objectives

5. Potential new reverse flow objectives for O & MR

6. Potential new floodplain flows

7. Monitoring and Special Studies -- some ideas for tech support

- Design a bottom salinity monitoring network and estimate the cost of installation and continued operation. There have been a lot of technological advancements since the 1995 plan and monitoring and special studies plan was adopted. We can measure bottom salinity directly now instead of measuring surface salinity and using the flawed NDOI equation to calculate bottom salinity.

- Draft coordinated monitoring plan – Create a draft monitoring plan that integrates BO, ITP, and D 1641 monitoring elements. Start by evaluating all the monitoring in the regulatory instruments within the Delta and Suisun (upper estuary), identify funding sources, responsible agencies, etc…

I assume you are v. busy with drought work and/or other items. If you have some time to think about this and talk today or tomorrow I think we would all benefit from your ideas.

Erin Foresman

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